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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,885	05/31/2001	Sohrab Mansouri	INL-052	2067
21323	7590	03/15/2004	EXAMINER	
TESTA, HURWITZ & THIBEAULT, LLP HIGH STREET TOWER 125 HIGH STREET BOSTON, MA 02110			NOGUEROLA, ALEXANDER STEPHAN	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,885

Applicant(s)

MANSOURI ET AL.

Examiner

ALEX NOGUEROLA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/18/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: IDS's of 9/12/2003, 5/31/2001, and 5/06/2003 .

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Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There was no claim 13, so misnumbered claims 14-19 have been renumbered as claims 13-18. The dependencies of these claims have also been renumbered, consistent with the renumbering of the claims.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 5 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because claim 24 provides an electrochemical sensor system as required by claim 5 and it would have been obvious to one with ordinary skill in the art to contact the electrochemical sensor with the solution and apply an electrical potential to polymerize at least a portion of the electropolymerizable monomer onto the polymerizable membrane, as required by claim 5, because claim 24 states, "said electropolymerizable monomer solution [is] polymerized to said polymeric membrane by the electric potential provided by said electrochemical sensor apparatus."

4. Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 5, from which claim 6 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 24 requires "a calibration solution in said reservoir containing an electropolymerizable monomer solution."

5. Claim 7 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 5, from which claim 7 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the

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contrary, such as unexpected results, the electric potential will depend on the electropolymerizable monomer.

6. Claim 8 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 5, from which claim 8 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the contrary, such as unexpected results, the time for which the electric potential is applied will depend on the desired thickness or the area of the desired electropolymerized polymer.

7. Claim 9 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 5, from which claim 9 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the contrary, such as unexpected results, (a) the electric potential will depend on the electropolymerizable monomer, and (b) the time for which the electric potential is applied will depend on the desired thickness or area or the desired electropolymerized polymer.

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8. Claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1 in view of Nagata (US 4,950,378). Claim 5, from which claim 10 depends, has been addressed above. The claims of U.S. Patent No. 6,652,720 B1 do not mention “applying an additional electrical potential to the electrode of sufficient strength and sufficient duration to remove at least a portion of interfering agents in said polymeric membrane.” Nagata teaches applying an electrical potential to a sensor electrode of sufficient strength and sufficient duration to remove at least a portion of interfering agents from a polymeric membrane on the electrode (abstract). It would have been obvious to one with ordinary skill in the art at the time of the invention to apply an electrical potential to clean a sensor electrode membrane as taught by Nagata in the invention of claim 24 of U.S. Patent No. 6,652,720 B1 because removing interferants from the electrode membrane will improve the accuracy of the sensor.

9. Claim 11 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1 in view of Nagata (US 4,950,378). Claim 5, from which claim 10 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because if the “electrical potential” refers to the electropolymerizing potential (a) the electric potential will depend on the electropolymerizable monomer, and (b) the time for which the electric potential is applied will depend on the desired thickness or the area of the desired electropolymerized polymer. If the “electric potential” refers removing interferants from the membrane then the electric potential and the duration for which this potential is applied must be

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balanced by the desired sensor accuracy to be restored against possible damage to the sensor, such as too high a potential adversely affecting a reagent mixture or other sensor component either through too high a current flow or harmful by-products of electrolysis.

10. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because, (a) construing an electrochemical card to be an electrochemical cartridge, claim 24 provides an electrochemical sensor cartridge as required by claim 5, (b) the electrochemical sensor of claim 24 is in fluid communication with a reservoir containing electropolymerizable monomer, and (c) it would have been obvious to one with ordinary skill in the art to apply an electrical potential to polymerize at least a portion of the electropolymerizable monomer onto the polymerizable membrane, as required by claim 12, because claim 24 states, "said electropolymerizable monomer solution [is] polymerized to said polymeric membrane by the electric potential provided by said electrochemical sensor apparatus."

11. Claim 13 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 12, from which claim 13 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 24 requires "a calibration solution in said reservoir containing an electropolymerizable monomer solution."

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12. Claim 14 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 12, from which claim 14 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the contrary, such as unexpected results, the electric potential will depend on the electropolymerizable monomer.

13. Claim 15 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 12, from which claim 15 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the contrary, such as unexpected results, the time for which the electric potential is applied will depend on the desired thickness or the area of the desired electropolymerized polymer.

14. Claim 16 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1. Claim 12, from which claim 16 depends, has been addressed above. Although the conflicting claims are not identical, they are not patentably distinct from each other because barring evidence to the contrary, such as unexpected results, (a) the electric potential will depend on the electropolymerizable monomer, and (b) the time for which the electric potential is applied will depend on the desired thickness or area or the desired electropolymerized polymer.

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15. Claim 17 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1 in view of Nagata (US 4,950,378). Claim 12, from which claim 17 depends, has been addressed above. The claims of U.S. Patent No. 6,652,720 B1 do not mention “applying an additional electrical potential to the electrode of sufficient strength and sufficient duration to remove at least a portion of interfering agents in said polymeric membrane.” Nagata teaches applying an electrical potential to a sensor electrode of sufficient strength and sufficient duration to remove at least a portion of interfering agents from a polymeric membrane on the electrode (abstract). It would have been obvious to one with ordinary skill in the art at the time of the invention to apply an electrical potential to clean a sensor electrode membrane as taught by Nagata in the invention of claim 24 of U.S. Patent No. 6,652,720 B1 because removing interferants from the electrode membrane will improve the accuracy of the sensor.

16. Claim 18 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of U.S. Patent No. 6,652,720 B1 in view of Nagata (US 4,950,378). Claim 17, from which claim 18 depends, has been addressed above.

Although the conflicting claims are not identical, they are not patentably distinct from each other because if the “electrical potential” refers to the electropolymerizing potential (a) the electric potential will depend on the electropolymerizable monomer, and (b) the time for which the electric potential is applied will depend on the desired thickness or the area of the desired electropolymerized polymer. If the “electric potential” refers removing interferants from the

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membrane then the electric potential and the duration for which this potential is applied must be balanced by the desired sensor accuracy to be restored against possible damage to the sensor, such as too high a potential adversely affecting a reagent mixture or other sensor component either through too high a current flow or harmful by-products of electrolysis.

Claim Rejections - 35 USC § 112

17. Claims 5-11 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

a) Claim 5 recites the limitation "electrochemical sensor system" in line 3. There is insufficient antecedent basis for this limitation in the claim; and

b) Claims 11 and 18: is the electropolymerizing potential or the interferants removing potential being referred to in this claim?

18. Note that dependent claims will have the deficiencies of base and intervening claims.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

20. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bryan et al. (US 5,162,077). For the limitations of claim 1 see the abstract and col. 4, ll. 44-62. For the limitations of claim 3 see col. 2, ll. 10-12.

21. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nagata (US 4,950,378). For the limitations of claim 1 see the abstract and col. 6, ln. 32 – col. 7, ln. 30. For the limitations of claims 2 and 3 see col. 7, ll. 37-43.

22. Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Peat et al. (US 6,478,950). See claim 1 of Peat et al.

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Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

25. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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26. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (US 5,162,077).

Addressing claim 2, Bryan et al. teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See the abstract and col. 4, ll. 44-62.

Bryan et al. does not mention a particular voltage range for the electrical potential; however, barring evidence to the contrary, such as unexpected results, the voltage range used is just a matter of optimizing the membrane cleaning process, which is obvious. As discussed by Bryan et al. the cleaning electrical potential will change the pH around the membrane and will create a gas for dislodging matter on the membrane (col. 3, ll. 30-54). Thus, one with ordinary skill in the art would adjust the voltage to produce the optimum pH and scrubbing action. For example, too high or low a pH may damage the membrane or electrode, while a pH near neutral may be ineffective for cleaning.

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Addressing claim 4, Bryan et al. teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See the abstract and col. 4, ll. 44-62.

Bryan et al. teaches, "that a one minute electrolysis period is sufficient to clear a fouled membrane" (col. 2, ll. 10-12).

Bryan et al. does not mention a voltage range for the electrical potential. In particular, an electric potential of 0.4 V, for cleaning the membrane, is not mentioned. However, barring evidence to the contrary, such as unexpected results, the voltage range used is just a matter of optimizing the membrane cleaning process, which is obvious. As discussed by Bryan et al. the cleaning electrical potential will change the pH around the membrane and will create a gas for dislodging matter on the membrane (col. 3, ll. 30-54). Thus, one with ordinary skill in the art would adjust the voltage to produce the optimum pH and scrubbing action. For example, too high or low a pH may damage the membrane or electrode, while a pH near neutral may be ineffective for cleaning.

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27. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peat et al. (US 6,478,950).

Addressing claim 2, Peat et al. teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See claim 1 of Peat et al.

Peat et al. does not mention a particular voltage range for the electrical potential; however, barring evidence to the contrary, such as unexpected results, the voltage range used is just a matter of optimizing the membrane cleaning process, which is obvious. As discussed by Bryan et al. the cleaning electrical potential will create microbubbles for dislodging matter on the membrane (col. 1, ll. 28-35). Thus, one with ordinary skill in the art would adjust the voltage to produce the optimum scrubbing action. For example, too many microbubbles may adversely affect the solubility of the solution in which the sensor is located and a special gas-purging step may be then required.

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Addressing claim 3, Peat et al. teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See claim 1 of Peat et al.

Peat et al. does not mention a particular time period for applying the electrical potential; however, barring evidence to the contrary, such as unexpected results, the time period during which the cleaning electrical potential is applied a matter of optimizing the membrane cleaning process, which is obvious. One with ordinary skill in the art would apply the cleaning electrical potential until a sufficient amount of interfering agents has been removed from the membrane, or, in other words, until the desired accuracy of the sensor has been restored.

Addressing claim 4, Peat et al. teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

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applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See claim 1 of Peat et al.

Peat et al. does not mention applying an electric (cleaning) potential of) 0.4 V for about 50 seconds, although Nagata does teach applying 0.1.2 V “for 1-10 seconds or so” (col. 7, ll. 37-43).

As for applying 0.4 V electrical potential, barring evidence to the contrary, such as unexpected results, the time period during which the cleaning electrical potential is applied a matter of optimizing the membrane cleaning process, which is obvious. One with ordinary skill in the art would apply the cleaning electrical potential until a sufficient amount of interfering agents has been removed from the membrane, or, in other words, until the desired accuracy of the sensor has been restored.

As for an electrical potential of 0.4V for 10-200 seconds, barring evidence to the contrary, such as unexpected results, the time period during which the cleaning electrical potential is applied a matter of optimizing the membrane cleaning process, which is obvious. One with ordinary skill in the art would apply the cleaning electrical potential until a sufficient amount of interfering agents has been removed from the membrane, or, in other words, until the desired accuracy of the sensor has been restored.

In short, the cleaning electric potential and the duration for which this potential is applied must be balanced by the desired sensor accuracy to be restored against possible damage to the sensor, such as too high a potential adversely affecting a reagent mixture or other sensor component either through too high a current flow or harmful by-products of electrolysis.

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28. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata (US 4,950,378).

Nagata teaches a method for removing interfering agents from a polymeric membrane layer comprising

providing an electrochemical sensor comprising an electrode and a composite membrane the composite membrane comprising at least one polymeric membrane;

providing an electrical source in electrical contact with the electrode; and

applying an electrical potential to the electrode sufficient to cause at least a portion of the interfering agents in the composite membrane to be removed.

See the abstract and col. 6, ln. 32 – col. 7, ln. 30.

Nagata does not mention applying an electric (cleaning) potential of) 0.4 V for about 50 seconds, although Nagata does teach applying 0.1.2 V “for 1-10 seconds or so” (col. 7, ll. 37-43).

As for applying 0.4 V electrical potential, barring evidence to the contrary, such as unexpected results, the time period during which the cleaning electrical potential is applied a matter of optimizing the membrane cleaning process, which is obvious. One with ordinary skill in the art would apply the cleaning electrical potential until a sufficient amount of interfering agents has been removed from the membrane, or, in other words, until the desired accuracy of the sensor has been restored.

As for an electrical potential of 0.4V for 10-200 seconds, barring evidence to the contrary, such as unexpected results, the time period during which the cleaning electrical potential is applied a matter of optimizing the membrane cleaning process, which is obvious. One with ordinary skill in the art would apply the cleaning electrical potential until a sufficient

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amount of interfering agents has been removed from the membrane, or, in other words, until the desired accuracy of the sensor has been restored.

In short, the cleaning electric potential and the duration for which this potential is applied must be balanced by the desired sensor accuracy to be restored against possible damage to the sensor, such as too high a potential adversely affecting a reagent mixture or other sensor component either through too high a current flow or harmful by-products of electrolysis.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX NOGUEROLA whose telephone number is (571) 272-1343. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NAM NGUYEN can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alex Noguera
Alex Noguera
03/04/04
Primary Examiner
TC 1753